mepolizumab (Nucala®)

EOCCO POLICY

Policy Type: PA/SP Pharmacy Coverage Policy: EOCCO046

Description

Mepolizumab (Nucala) is a monoclonal antibody (IgG1 Kappa) that antagonizes interleukin-5 (IL-5) for the indication of severe eosinophilic asthma (SEA) and eosinophilic granulomatosis with polyangiitis (EGPA).

Length of Authorization

- Initial: Six months
- Renewal: Six months

Quantity limits

Product Name	Dosage Form	Indication	Quantity Limit
mepolizumab (Nucala)	100 mg/mL syringe	Severe eosinophilic asthma	1 syringes/autoinjectors/28 days
	100 mg/mL autoinjector		
	100 mg/mL syringe	Eosinophilic granulomatosis with polyangiitis	3 syringes/autoinjectors/28 days
	100 mg/mL autoinjector		
Provider Administered Agents			
mepolizumab (Nucala)	100 mg/vial	Severe eosinophilic asthma	1 vial/28 days
		Eosinophilic granulomatosis with polyangiitis	3 vials/28 days

Initial Evaluation

I. Mepolizumab (Nucala) may be considered medically necessary when the following criteria below are met:
   A. Must not be used in combination with another monoclonal antibody (e.g., benralizumab omalizumab, reslizumab, etc.); **AND**
   B. A diagnosis of one of the following:
      1. **Severe Eosinophilic Asthma (SEA)**; **AND**
         i. Member must be six years of age or older; **AND**
         ii. The member has severe asthma as defined by one of the following:
            a. Symptoms throughout the day

b. Nighttime awakenings, often 7x/week
c. SABA use for symptom control occurs several times per day
d. Extremely limited normal activities
e. Lung function (percent predicted FEV1) <60%
f. Exacerbations requiring oral systemic corticosteroids are generally more frequent and intense relative to moderate asthma; **AND**

iii. The member must have asthma with an eosinophilic phenotype defined as blood eosinophils ≥300 cells/µL within previous 12 months or ≥150 cells/µL within 6 weeks of dosing; **AND**

iv. Must be used for add-on maintenance treatment in members <u>regularly</u> receiving BOTH of the following:
a. Medium to high-dose inhaled corticosteroids; **AND**
b. An additional controller medication (e.g., long-acting beta agonist, leukotriene modifiers, etc.); **AND**

v. Must have two or more exacerbations in the previous year requiring daily oral corticosteroids for at least 3 days (in addition to the regular maintenance therapy defined above); **OR**

2. **Eosinophilic Granulomatosis with Polyangiitis (EGPA)**; **AND**
i. The member must be 18 years of age or older; **AND**
ii. Member has a confirmed diagnosis of EGPA (aka Churg-Strauss Syndrome) as defined by ALL of the following:
a. History or presence of asthma; **AND**
b. Blood eosinophil level 10% or an absolute eosinophil count >1000 cells/mm3; **AND**
c. TWO or more of the following criteria:
i. Histopathologic evidence of eosinophilic vasculitis, perivascular eosinophilic infiltration or eosinophil rich granulomatous inflammation
ii. Neuropathy
iii. Pulmonary infiltrates
iv. Sinonasal abnormalities
v. Cardiomyopathy
vi. Glomerulonephritis
vii. Alveolar hemorrhage
viii. Palpable purpura
ix. Antineutrophil Cytoplasmic Antibody (ANCA) positivity; **AND**

iii. Member must have blood eosinophils ≥150 cells/µL within 6 weeks of dosing; **AND**

iv. Member has been on stable doses of concomitant oral corticosteroid therapy for at least 4 weeks (i.e., prednisone or prednisolone at a dose of 7.5 mg/day); **AND**

v. Physician has assessed baseline disease severity utilizing an objective measure/tool (e.g., Birmingham Vasculitis Activity Score [BVAS], history of asthma symptoms and/or exacerbations duration of remission or rate of relapses, etc.).

II. Mepolizumab (Nucala) is considered investigational when used for all other conditions, including but not limited to:

A. Non-severe, non-eosinophilic phenotype asthma
B. GPA (Wegener's granulomatosis) with polyangiitis
C. MPA (microscopic polyangiitis)

Renewal Evaluation

I. Absence of unacceptable toxicity from the drug. (Examples of unacceptable toxicity include the following: parasitic (helminth) infection, herpes zoster infection, severe hypersensitivity reactions, etc.); **AND**

II. Treatment has resulted in clinical benefit for the following indications:

- **Severe Eosinophilic Asthma**
  - i. Improvement in asthma symptoms or asthma exacerbations as evidenced by decrease in one or more of the following:
    1. Use of systemic corticosteroids
    2. Two-fold or greater decrease in inhaled corticosteroid use for at least 3 days
    3. Hospitalizations
    4. ER Visits
    5. Unscheduled visits to healthcare provider; **OR**
  - ii. Improvement from baseline in forced expiratory volume in 1 second (FEV_1); **OR**
- **Eosinophilic Granulomatosis with Polyangiitis**
  - i. Disease response as indicated by improvement in signs and symptoms compared to baseline as evidenced in one or more of the following:
    1. Member is in remission [defined as a Birmingham Vasculitis Activity Score (BVAS) score=0 and a prednisone/prednisolone daily dose of ≤ 7.5 mg]
    2. Decrease in maintenance dose of systemic corticosteroids
    3. Improvement in BVAS score compared to baseline
    4. Improvement in asthma symptoms or asthma exacerbations
    5. Improvement in duration of remission or decrease in the rate of relapses

Supporting Evidence

I. Mepolizumab (Nucala) is indicated as an add-on maintenance treatment for members 6 years and older with a diagnosis of severe eosinophilic asthma (SEA), and indicated to treat adult members with eosinophilic granulomatosis with polyangiitis. The age expansion approval by the FDA from 12 years of age to 6 years of age in children with a diagnosis of SEA was based on an open-label study that was conducted in children age 6 to 11 years of age with SEA. In this study, pharmacokinetics, pharmacodynamics, and long-term safety were evaluated and determined consistent with the known safety profile associated with members aged 12 years and older.

II. The FDA approval of mepolizumab (Nucala) in the setting of severe eosinophilic asthma were evaluated in 3 randomized, placebo controlled multicenter trials of 24 to 52 weeks in duration. The primary outcome was the rate of exacerbation, and it was reduced by 47% (95% confidence interval [CI], 28 to 60) among members receiving intravenous mepolizumab and by 53% (95% CI, 36 to 65) among those receiving subcutaneous mepolizumab, as compared with those receiving placebo (P<0.001 for both comparisons). The members enrolled in this trial were 12 to 82 years of age.

III. The FDA approval of mepolizumab (Nucala) in the setting of eosinophilic granulomatosis with polyangiitis was evaluated in a multicenter, double-blind, parallel-group, phase 3 trial. The two primary end points were the accrued weeks of remission over a 52-week period, according to categorical quantification, and the proportion of participants in remission at both week 36 and week 48. In the mepolizumab treatment arm, there was significantly more accrued weeks of remission than placebo (28% vs. 3% of the participants had ≥24 weeks of accrued remission; odds ratio, 5.91; 95% confidence interval [CI], 2.68 to 13.03; P<0.001) and a higher percentage of participants in remission at both week 36 and week 48 (32% vs. 3%; odds ratio, 16.74; 95% CI, 3.61 to 77.56; P<0.001). The members that were enrolled in this trial were at least 18 years of age.

Investigational or Not Medically Necessary Uses

I. Non-severe, non-eosinophilic phenotype asthma
   A. Mepolizumab (Nucala) has not been studied in members with non-severe, non-eosinophilic phenotype asthma; therefore, it would be considered investigational when Nucala is requested in that setting.

II. GPA (Wegener's granulomatosis) with polyangiitis and MPA (microscopic polyangiitis)
   A. Both GPA and MPA diagnoses were excluded in the phase 3 trial (A Study to Investigate Mepolizumab in the Treatment of Eosinophilic Granulomatosis with Polyangiitis).

References

1. Nucala [Prescribing Information]. Philadelphia, PA: GlaxoSmithKline LLC. June 2019.
2. Ortega HG, Liu MC, Pavord ID, et al. Mepolizumab Treatment in Members with Severe Eosinophilic Asthma. N Engl J Med 2014; 371:1198-1207. DOI: 10.1056/NEJMoa1403290.
3. Wechsler ME, Akuthota P, Jayne D, et al. Mepolizumab or Placebo for Eosinophilic Granulomatosis with Polyangiitis. N Engl J Med 2017; 376:1921-1932. DOI: 10.1056/NEJMoa1702079.
4. Global Initiative for Asthma (GINA). Global Strategy for Asthma Management and Prevention. 2019 Update. Available from: http://www.ginasthma.org. Accessed September 2019.

Policy Implementation/Update:

Date Created	June 2019
Date Effective	August 2019
Last Updated	October 2019
Last Reviewed	06/2019, 08/2019, 10/2019

Action and Summary of Changes	Date
Policy updated to reflect the newly approved age expansion for SEA from members 12 years and older to 6 years or older. Also added leukotriene modifiers as an example of a controller medication per GINA guidelines. To the EGPA section, examples of an objective measure/tool were added to align with renewal criteria and changed classification criteria for eosinophils to > 10% per ACR classification.	10/2019
New Policy	06/2019